Abstract of the Disclosure

A presumptive mode computer aided design and drafting system for interactively manipulating and displaying graphic objects that employ predefined rules to govern the geometric layout and logical relationships representing a physical design, schematic or process flow diagram. The system is configured to comply with the rules employed by various design disciplines. Specific interactive computer graphics behavior is dynamically accessed to interactively update graphic object relationships according to rules of geometric conduct. The rules of geometric conduct may be stored in external databases along with parameters to verify the logical relationships of the graphic objects used in the drawing. Object orientation is employed in the software design of the system to allow new devices or procedures to adopt the behavior of existing definitions. In the preferred embodiment, a selected object floats with a cursor in a graphic environment until located in proximity with underlying graphic objects. The selected object then aligns, jumps and clings to the underlying graphic object or objects according to predetermined rules. For example, the object is automatically rotated, orientated and positioned relative to a cling point into a correct relationship with the underlying object without further input by the operator. Further, the selected object slides along the underlying graphic object maintaining the correct geometric relationship while the operator moves the cursor in proximity with the underlying graphic. The operator either accepts the presumed relationship or moves the cursor away to uncling the selected object.